Applicant: Serial No.:

Grah et al 10/749,451

Page 3

10/749,431

Pending Claims

The following listing of claims replaces all prior versions and listings of claims in this application:

Listing of Claims

1. (Currently amended.) A method of shrinking a film comprising the steps of:

providing a film comprising one or more thermoplastic polymers and at least about 0.001 weight % of single-walled carbon nanotube material based on the weight of the film, wherein the film has a free shrink at 185°F in at least one of the machine or transverse directions of at least about 5% measured according to ASTM D 2732; and

exposing the film to an amount of radiation energy effective to <u>structurally disrupt</u> at least a portion of the <u>single-walled carbon nanotube material and</u> activate the shrink characteristic of the film.

- 2. (Original) The method of claim 1 wherein the film of the providing step has a free shrink at 185°F in at least one of the machine or transverse directions of at least about 20% measured according to ASTM D 2732.
- 3. (Original) The method of claim 1 wherein the film of the providing step has a free shrink at 185°F in at least one of the machine or transverse directions of at least about 40% measured according to ASTM D 2732.
- 4. (Original) The method of claim 1 wherein the film of the providing step has a shrink tension at 185°F in at least one of the machine or transverse directions of at least about 100 psi measured according to ASTM D 2838 (Procedure A).

Grah et al

Serial No.: Page 4 10/749,451

5. (Original) The method of claim 1 wherein the film of the providing step has a shrink tension

at 185°F in at least one of the machine or transverse directions of at most about 250 psi measured

according to ASTM D 2838 (Procedure A).

6. (Original) The method of claim 1 wherein the exposing step causes the free shrink at 220°F

in at least one direction of the film to decrease by at least about 10%.

7. (Original) The method of claim 1 wherein the exposing step causes the shrink tension at

220°F in at least one direction of the film to decrease by at least about 10%.

8. (Original) The method of claim 1 wherein the radiation energy amount comprises a surface

dose of non-ionizing radiation of at least about 0.01 mJ/cm2 that is delivered within a duration of

at most about 30 seconds.

9. (Original) The method of claim 1 wherein the radiation energy amount comprises a surface

dose of non-ionizing radiation of at least about 1 mJ/cm2 that is delivered within a duration of at

most about 10 seconds.

10. (Original) The method of claim 1 wherein the radiation exposure step comprises a radiation

intensity of non-ionizing radiation at the surface of the film of at least about 10 mW/cm2.

11. (Original) The method of claim 1 wherein the radiation exposure step comprises a radiation

intensity of non-ionizing radiation at the surface of the film of at least about 50 mW/cm2.

12. (Original) The method of claim 1 wherein the radiation exposure step comprises a radiation

intensity of non-ionizing radiation at the surface of the film of at least about 500 mW/cm2.

Grah et al

Serial No.:

10/749,451

Page 5

13. (Original) The method of claim 1 wherein the film of the providing step comprises at least one layer comprising at least about 50 % of the single-walled carbon nanotube material by weight of the total amount of single-walled carbon nanotube material in the film.

- 14. (Original) The method of claim 1 wherein the film of the providing step comprises a shrink layer comprising at least about 50 % of the single-walled carbon nanotube material by weight of the total amount of single-walled carbon nanotube material in the film.
- 15. (Original) The method of claim 1 wherein the film of the providing step comprises at least about 50 % of one or more polyolefins by weight of the film.
- 16. (Original) The method of claim 1 wherein the film of the providing step comprises at least about 50 % of one or more vinyl plastics by weight of the film.
- 17. (Withdrawn) The method of claim 1 wherein the film of the providing step is monolayer.
- 18. (Original) The method of claim 1 wherein the film of the providing step comprises at least three layers.
- 19. (Original) The method of claim 1 wherein the film of the providing step is at least about 1 mil in thickness.
- 20. (Original) The method of claim 1 wherein the step of exposing to the effective amount of radiation energy occurs within at most about 30 seconds.
- 21. (Original) The method of claim 1 wherein the step of exposing to the effective amount of radiation energy occurs within at most about 10 seconds.

Grah et al

Serial No.:

10/749,451

Page 6

22. (Original) The method of claim 1 wherein the step of exposing to the effective amount of radiation energy occurs within at most about 1 second.

- 23. (Original) The method of claim 1 wherein the step of exposing to the effective amount of radiation energy occurs within at most about 0.01 seconds.
- 24. (Original) The method of claim 1 wherein the radiation exposure step comprises exposing to an effective amount of non-ionizing radiation comprising at least about 50% visible light energy.
- 25. (Withdrawn) The method of claim 1 wherein the radiation exposure step comprises exposing to an effective amount of non-ionizing radiation comprising at least about 50% infrared light energy.
- 26. (Withdrawn) The method of claim 1 wherein the radiation exposure step comprises exposing to an effective amount of non-ionizing radiation comprising at least about 50% ultraviolet light energy.
- 27. (Original) The method of claim 1 wherein the effective amount of radiation energy of the exposing step is delivered discontinuously by at least two pulses.
- 28. (Original) The method of claim 1 wherein the film of the providing step comprises at least one layer comprising at least about 0.01 weight % single-walled carbon nanotube material by weight of the layer.
- 29. (Original) The method of claim 1 wherein the film of the providing step comprises at least one layer comprising at least about 0.1 weight % single-walled carbon nanotube material by weight of the layer.

Grah et al

Serial No.:

10/749,451

Page 7

30. (Original) The method of claim 1 wherein the film of the providing step comprises at least one layer comprising at least about 0.5 weight % single-walled carbon nanotube material by weight of the layer.

- 31. (Original) The method of claim 1 wherein the film of the providing step comprises at least one layer comprising at least about 1 weight % single-walled carbon nanotube material by weight of the layer.
- 32. (Original) The method of claim 1 wherein the film of the providing step comprises at least one layer comprising at least about 5 weight % of single-walled carbon nanotube material by weight of the layer.
- 33. (Canceled.)
- 34. (Original) The method of claim 1 wherein the exposing step structurally disrupts at least about 50 weight % of the single-walled carbon nanotube material present in the film of the providing step.
- 35. (Withdrawn) The method of claim 1 wherein:

the film of the providing step is unperforated; and

the step of exposing of the film to the effective amount of radiation energy causes the film to be perforated with a plurality of apertures.

36. (Original) The method of claim 1 wherein:

the film of the providing step is unperforated; and

the exposing of the film to the effective amount of radiation energy does not cause the film to be perforated.

37. (Original) The method of claim 1 wherein the film comprises:

Grah et al

Serial No.: Page 8 10/749,451

an outer layer of the film; and

one or more discontinuous regions supported by the outer layer of the film, wherein the one or more discontinuous regions comprise at least a portion of the single-walled carbon nanotube material.

38. (Original) The method of claim 1 wherein the film comprises:

an outer layer of the film; and

one or more discontinuous regions supported by the outer layer of the film, wherein the one or more discontinuous regions comprise thermoplastic polymer and at least a portion of the single-walled carbon nanotube material.

- 39. (Withdrawn) A film comprising one or more thermoplastic polymers and at least about 0.001 weight % of single-walled carbon nanotube material based on the weight of the film, wherein the film has a free shrink at 185°F in at least one of the machine or transverse directions of at least about 5% measured according to ASTM D 2732.
- 40. (Withdrawn) The film of claim 39 wherein the film has a free shrink at 185°F in at least one of the machine or transverse directions of at least about 20% measured according to ASTM D 2732.
- 41. (Withdrawn) The film of claim 39 wherein the film has a free shrink at 185°F in at least one of the machine or transverse directions of at least about 40% measured according to ASTM D 2732.
- 42. (Withdrawn) The film of claim 39 wherein the film has a shrink tension at 185°F in at least one of the machine or transverse directions of at least about 100 psi measured according to ASTM D 2838 (Procedure A).

Applicant: Grah et al Serial No.: 10/749,451

Page 9

43. (Withdrawn) The film of claim 39 wherein the film has a shrink tension at 185°F in at least one of the machine or transverse directions of at most about 250 psi measured according to ASTM D 2838 (Procedure A).

- 44. (Withdrawn) The film of claim 39 further comprising at least one layer comprising at least about 50 % of the single-walled carbon nanotube material by weight of the total amount of single-walled carbon nanotube material in the film.
- 45. (Withdrawn) The claim of claim 39 further comprising a shrink layer comprising at least about 50 % of the single-walled carbon nanotube material by weight of the total amount of single-walled carbon nanotube material in the film.
- 46. (Withdrawn) The film of claim 39 further comprising at least about 50 % of one or more polyolefins by weight of the film.
- 47. (Withdrawn) The film of claim 39 further comprising at least about 50 % of one or more vinyl plastics by weight of the film.
- 48. (Withdrawn) The film of claim 39 wherein the film is monolayer.
- 49. (Withdrawn) The film of claim 39 wherein the film comprises at least three layers.
- 50. (Withdrawn) The film of claim 39 wherein the film is at least about 1 mil in thickness.
- 51. (Withdrawn) The film of claim 39 further comprising at least one layer comprising at least about 0.1 weight % single-walled carbon nanotube material by weight of the layer.

Applicant: Grah et al Serial No.: 10/749,451

Page 10

52. (Withdrawn) The film of claim 39 further comprising at least one layer comprising at least about 0.5 weight % single-walled carbon nanotube material by weight of the layer.

- 53. (Withdrawn) The film of claim 39 further comprising at least one layer comprising at least about 1 weight % single-walled carbon nanotube material by weight of the layer.
- 54. (Withdrawn) The film of claim 39 further comprising at least one layer comprising at least about 5 weight % of single-walled carbon nanotube material by weight of the layer.
- 55. (Withdrawn) A packaged object comprising:

 a package comprising the film of claim 39 and defining an interior space; and
 an object enclosed in the interior space of the package.
- 56. (Withdrawn) The packaged object of claim 55 wherein the object comprises a food product.
- 57. (Withdrawn) A method of packaging an object comprising:

 providing the packaged object of claim 55; and

 exposing the film to an amount of radiation energy effective to activate the shrink characteristic of the film.
- 58. (Withdrawn) A heat shrink sleeve comprising the film of claim 39.
- 59. (Withdrawn) A tamper-evident shrink band comprising the film of claim 39.